

served in 10% neutral buffered formalin (Halc, 1965), dissected and sexed by macroscopic examination of the gonads.

The sex of all maturing, ripe and spawning fish could be distinguished externally on the basis of the genital papilla immediately anterior to the anus in the male and immediately posterior to the anus in the female. In maturing females the papilla formed into two lobes (Fig. 1A), whilst males possessed a single elongate structure (Fig. 1B). The papilla of immature fish was not developed and sexes could not be distinguished externally at this stage. The papilla regressed after spawning.

The existence of distinctive genital papillae has not been recorded in galaxiids before and their functions, if any, are not known. During the present study these papillae were also observed in the golden galaxias, *Galaxias auratus* and the climbing

galaxias, *G. brevipinnis*. The occurrence of genital papillae and the ability to sex some galaxiid fish by external examination only, may prevent killing of fish unnecessarily. This may prove useful in the study of small populations and possibly endangered species of galaxiids.

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### Naturalist Note

## The Water Rat *Hydromys chrysogaster* in Melbourne

BY IAN FAITHFULL\*

On 6th October 1986 at 7.10 p.m. I was surprised to see a Water Rat *Hydromys chrysogaster* in the Yarra River under Princes Bridge, Melbourne. On the south-west side of the bridge there is a powerful floodlight which illuminates the bridge and a section of the water. The rat was first seen swimming on the surface and making brief dives. Its prominently flattened head was apparent. After a short time it emerged onto a narrow mud flat on the river edge and proceeded to devour a small item it had collected. The long tail with long white tip was clearly visible. After this meal the animal

swam under the bridge and was lost to sight.

I have also seen the species in the pondage above Dights Falls, Collingwood, and in the Merri Creek under the Eastern Freeway Bridge. On 13th April 1986 at least two animals were seen at this latter locality.

Seebeck (1977) reported that the number of Water Rats seemed to be decreasing downstream from Heidelberg, so it is pleasing to note their continued existence in the inner city.

#### REFERENCE

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